

INTISARI

Latar belakang. Pasien MBD *of unknown origin* membutuhkan waktu sekitar 4 bulan hingga diagnosis dapat ditegakkan. Hal tersebut dikarenakan belum adanya kesepakatan dalam diagnosis dan penanganan MBD *of unknown origin*. Untuk itu diperlukan algoritma tatalaksana MBD *of unknown origin* yang disusun secara sistematis dan berbasis bukti sehingga dapat mengatasi permasalahan tersebut.

Tujuan. Untuk meningkatkan diagnosis dan tatalaksana pasien MBD *of unknown origin* dengan penggunaan algoritma INA-MBD

Metode penelitian. Penelitian ini merupakan penelitian *quasi experimental* dengan rancangan *pre-test post-test without control group design*. Sebanyak 146 subjek penelitian yang memenuhi kriteria inklusi dikumpulkan secara konsekutif, terbagi menjadi kelompok intervensi (menggunakan algoritma INA-MBD) dan non-intervensi (tidak menggunakan algoritma). Analisis data untuk variable *time to diagnosis* dilakukan dengan uji *Kaplan-Meier* dan uji *Cox-regresion* untuk analisis bivariat dan *Cox-regresion* untuk analisis multivariat terhadap faktor luar. Analisis *cost to diagnosis* dengan analisis *covariance*.

Hasil. Analisis hasil *time to diagnosis* median 29 hari ($p=0.000$), HR 2,52 ($p=0.000$) dan *cost to diagnosis* rerata Rp. 23.878.055($p=0.000$) pada kelompok algoritma INA-MDB dan tanpa algoritma menunjukkan perbedaan yang signifikan.

Kesimpulan. Implementasi algoritma INA-MBD dalam penanganan kasus *metastatic bone disease of unknown origin* dapat mempersingkat *time to diagnosis* dan mengurangi *cost to diagnosis*.

Kata kunci. *metastatic bone disease, neoplasm metastasis, unknown primary, algoritma, tatalaksana.*

**Pengaruh Algoritma Indonesia *Metastatic Bone Disease* (INA-MBD) of
unknown origin terhadap *Time to diagnosis* dan *Cost to diagnosis***

Yuni Artha Prabowo Putro¹, Teguh Aryandono², Irianiwati Widodo³,
Rahadyan Magetsari¹, Dibyo Pramono⁴

¹Division of Orthopaedics and Traumatology, Department of Surgery, RSUP Dr. Sardjito Hospital, Jl. Kesehatan Sendowo No.1, Sleman, 55281, D.I.Yogyakarta, Indonesia., Universitas Gadjah Mada, ²Division of Oncology, Department of Surgery, RSUP Dr. Sardjito Hospital, Jl. Kesehatan Sendowo No.1, Sleman, 55281, D.I.Yogyakarta, Indonesia., Universitas Gadjah Mada, ³Department of Pathology, RSUP Dr. Sardjito Hospital, Jl. Kesehatan Sendowo No.1, Sleman, 55281, D.I.Yogyakarta, Indonesia., Universitas Gadjah Mada, ⁴Faculty of Dentistry, Universitas Gadjah Mada, Jl. Denta No.1, Sekip Utara, Sleman, 55281, D.I.Yogyakarta, Indonesia., Universitas Gadjah Mada.

ABSTRACT

Background. Patients with metastatic bone disease (MBD) of unknown origin require approximately four months for a definitive diagnosis. This delay is due to the lack of consensus on the diagnosis and management of MBD of unknown origin. Therefore, a systematically structured and evidence-based treatment algorithm is needed to address this issue effectively.

Purpose. To improve diagnosis and management of MBD patients of unknown origin by using the INA-MBD algorithm.

Research method. This study employs a quasi-experimental with pre-test post-test design. A total of 146 subject fulfill the inclusion criteria were collected consecutively and divided into an intervention group (using the INA-MBD algorithm) and a non-intervention group (not using the algorithm). Data analysis for the time to diagnosis variable was conducted using Kaplan-Meier and Cox-regression for bivariate analysis, while Cox-regression was also used for multivariate analysis to account for external factors. Cost to diagnosis was analyzed using analysis of covariance.

Result. Analysis of time to diagnosis with median 29 days ($p=0.000$), HR 2,52 ($p=0.000$) and cost to diagnosis mean Rp. 23.878.055 ($p=0.000$) in the INA-MBD algorithm group and without the algorithm showed significant differences.

Conclusion. The implementation of the INA-MBD algorithm in managing metastatic bone disease cases able to shorten the time to diagnosis and reduce the cost of diagnosis.

Keywords. metastatic bone disease, neoplasm metastasis, unknown primary, algorithm, management.